NGDA Dataset Report

Official NGDA Title: NOAA Raster Navigational Charts (RNC)

Metadata Record Title: NOAA Raster Navigational Charts (RNC)

A–16 NGDA Theme: Water - Oceans and Coasts

Executive NGDA Theme Champion(s):

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Metadata:

Registration Status: Complete

Registered on 12/24/2014

GeoPlatform Link*:   http://www.geoplatform.gov/node/243/904e5352-443b-44ed-8dce-734dec1c820d

Data.gov Metadata Link*:   http://catalog.data.gov/harvest/object/af2e650f-17a4-4bc7-9ba4-758e93798db6/html

*If the metadata has been updated and reharvested after publication of this report, the link may no longer be valid. The dataset may be searched for manually in Data.gov or GeoPlatform.gov.

NGDA Lifecycle Maturity Assessment (LMA) Report

Time Frame:

Baseline assessment responses include data sets that are updated weekly. Each RNC product has an edition date and a corrected through date posted.

LMA Submission:

Status: Complete

Date: 10/30/2015

Extension Requested: No

LMA Reviewer(s):

Supervisor: Did not review

Theme Lead: Toni Lavoi

Executive Champion: Did not review

SAOGI*: Did not review

Other: Did not review

LMA Verifier:

Name: Toni Lavoi

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Attachments:

To get access to any attachments referenced in the report, email the LMA Help Desk at NGDA_LMA_help@fgdc.gov. Please use the subject "Dataset Report Attachment(s)" and indicate the associated official NGDA title.

*Senior Agency Official for Geospatial Information (SAOGI)

Lifecycle Maturity Assessment (LMA) Summary

Overall Maturity:

Optimized; Established	

General Questions: 100%

Optimized; Established

Stage 1 - Define/Plan: 100%

Optimized; Established

Stage 2 - Inventory/Evaluate: 100%

Optimized; Established

Stage 3 - Obtain: 100%

Optimized; Established

Stage 4 - Access: 100%

Optimized; Established

Stage 5 - Maintain: 100%

Optimized; Established

Stage 6 - Use/Evaluate: 100%

Optimized; Established

Stage 7 - Archive: 100%

Optimized; Established

NGDA Dataset Maturity Definitions:

How To Calculate Maturity: https://www.geoplatform.gov/sites/default/files/How_to_Calculate_Maturity.pdf

Maturity	Maturity Characteristics for All Lifecycle Stages
Optimized; Established Rank = 5	Dataset meets virtually all business needs of all users. The dataset is considered authoritative by owners and secondary users. It is curated across all stages of the approved lifecycle. Future needs are defined on a regular basis and resources for addressing both current and future business requirements are available.
Mature; Consistent Rank = 4	Dataset meets all the business needs of the primary owner and most of the secondary users. The dataset is curated and used as authoritative by the primary owner. Dataset is used widely by secondary users actively engaged in sustaining the dataset. Future needs are identified and steps are planned to address these. All stages are supported and reviewed on a recurring basis. The dataset is well managed in relation to the approved lifecycle.
Managed; Predictable Rank = 3	Dataset meets a significant number of the business needs of the primary owner and is widely used as an authoritative resource by secondary users. Benchmark activities are occurring in at least four of the approved lifecycle stages. Management practices in relation to the approved lifecycle is moderate but consistent. Dataset is integrating changing business requirements in lifecycle stages impacting overall maturity.
Transition; Transformation Rank = 2	Dataset meets business needs of the primary owner and has moderate use by secondary users. Benchmark activities are occurring in at least three stages. Efforts to integrate funding, include partners, and obtain data are not supported in a sustained manner. Management practices in relation to the stages of the approved lifecycle is limited.
Planned; Initial Development Rank = 1	Dataset limited in meeting business needs of the primary owner. Benchmark activities in the approved lifecycle are just starting to consider secondary uses, partnerships are forming to support additional dataset uses. Dataset development is in a very early stage. Minimal or limited management against the benchmarks in the approved lifecycle.
No Activity Rank = no activity	Dataset meets project or local business needs of the primary owner, secondary or additional uses or users were not considered, not recognized as an authoritative data or is part of a similar dataset. Not managed to any of the benchmarks in the approved lifecycle.

General Questions for All Stages

1) Is there a recurring process to obtain funding for all lifecycle stages of this dataset?

Answer: Funding support is part of agency budget on a recurring basis, funding is consistent and tied to business processes, and supports all lifecycle stages.

Justification Comment: **Attachment(s):**   0

The Raster Navigational Chart (RNC) datasets are specific to meet obligations to satisfy the International Maritime Organization's (IMO) Safety of Life at Sea Chapter V regulations for the carriage of electronic charts for safe navigation and the USCG carriage requirements for sub-SOLAS vessels (Chart carriage regulations of the U.S. Coast Guard, 33 C.F.R. 164.33:§ 164.33 Charts and publications).

In addition, the Act of 1947 (known as the "Coast and Geodetic Survey Act") 33 U.S.C 883a authorizes the Office of Coast Survey to collect and disseminate data for nautical charting.

http://www.gpo.gov/fdsys/granule/CFR-2010-title33-vol2/CFR-2010-title33-vol2-part164

2) Is there a process in place to ensure that open government and transparency guidelines are followed in all lifecycle stages for this dataset?

Answer: Process is published as appropriate with respect to sensitivity requirements, process is transparent, published appropriately.

Justification Comment: **Attachment(s):**   0

Management of this dataset follows all scientific data management per the NOAA Administrative Order "NAO 202-735D: Scientific Integrity." NAO 202-735D outlines how NOAA complies with Open Government and Transparency requirements for all scientific data.

http://nrc.noaa.gov/sites/nrc/Documents/Procedural_Handbook_NAO_202-735D_31Jan_2012.pdf

3) Are there processes and tools in place so that staff are sufficiently knowledgeable to ensure a continuity of the dataset for all stages of the lifecycle, especially during staffing transitions?

Answer: Processes and tools to ensure dataset continuity are in place and implemented for all lifecycle stages.

Justification Comment: **Attachment(s):**   0

Coast Survey follows ISO 9001 Quality Management standards as a tool to ensure that all datasets used in the creation of Raster Navigational Charts (RNC) follow a standard process. All documentation is available internally on the Coast Survey SharePoint site.

STAGE 1 - Define/Plan

4) Are user and business requirements defined and formalized?

Answer: A recurring process is in place, including defining new partner and stakeholder business needs as they arise, and is fully implemented.

Justification Comment: **Attachment(s):**   0

The Raster Navigational Chart (RNC) collection follow standards as defined by the International Hydrographic Organization (IHO). In addition, when new products are developed they are done in conjunction with stakeholder feedback.

https://www.iho.int/srv1/index.php?lang=en

5) How are partners/stakeholders involved in the requirements collection process?

Answer: A recurring process is in place, including defining new partner and stakeholder business

needs as they arise, and is fully implemented.

Justification Comment: **Attachment(s):**   0

The Office of Coast Survey utilizes its Navigation Manager program to meet with various stakeholders to determine how to improve its products. In addition, it also conducts an annual survey of its stakeholders to help inform future requirements.

In 2003 the Hydrographic Services Review Panel (HSRP) was established to provide advice in forming NOAA's strategic plan to improve the nation's marine transportation system.

http://www.nauticalcharts.noaa.gov/ocs/hsrp/hsrp.htm

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6)   Is there a quality assurance process for the dataset?

Answer: Quality assurance published as appropriate with respect sensitivity requirements.

Justification Comment: **Attachment(s):**   0

Fully documented internal quality assurance process following ISO 9000 standards.

http://www.iso.org

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7)   Is there a process to evaluate the sensitivity, privacy, and confidentiality of this dataset?

Answer: Sensitivity, privacy, and confidentiality evaluations fully implemented, reviewed and updated on a recurring basis.

Justification Comment: **Attachment(s):**   0

Coast Survey has a process in place to ensure that no sensitive, private, or confidential data is made available in the charting products provided to the general public. This data collection doesn't contain any sensitive, private or confidential information.

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8)   Are defined data standards used in collecting, processing, and/or rendering the data?

Answer: Standards fully implemented documented and published as appropriate.

Justification Comment: **Attachment(s):**   0

The RNC product follows a combination of standards as developed by the IHO and a national implementation of those standards. The IHO standard is S-4 and the NOAA specification is the Nautical Charting Manual.

http://www.iho.int

STAGE 2 - Inventory/Evaluate

9)   Is there a process for determining if data necessary to meet requirements already exist from other sources (either within or outside the agency) before collecting or acquiring new data?

Answer: Process for determining appropriate data is being reused fully implemented, reviewed, and updated on a regular basis.

Justification Comment: **Attachment(s):**   0

The Raster Navigational Chart (RNC) data sets are specific to meet obligations to satisfy the International Maritime Organization's (IMO) Safety of Life at Sea Chapter V regulations for the carriage of electronic charts for safe navigation. Coast Survey also works with the other Federal Agencies through the Integrated Ocean and Coastal Mapping (IOCM) Program to collect data once and use in many applications.

http://www.imo.org/en/Publications/Pages/Home.aspx

STAGE 3 - Obtain

10) Is there a process for obtaining data in relation to this dataset?

Answer: Process is fully implemented, reviewed and updated on a regular basis.

Justification Comment: **Attachment(s):**   0

Multiple processes in place to obtain data for the navigational products. The Nautical Data Branch for the Marine Chart Division handles the collection of various sources of data for application to navigational products.

http://www.nauticalcharts.noaa.gov

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11) Is the metadata in a FGDC endorsed geospatial metadata standard?

Answer: Metadata is available in a format endorsed by the FGDC, it fully describes the dataset and provides all the information required to make the dataset discoverable, accessible, and usable.

Justification Comment: **Attachment(s):**   0

RNC Metadata

http://catalog.data.gov/dataset/noaa-raster-navigational-charts-rnc

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12) How complete is the geographic coverage as defined in the requirements for the dataset?

Part 1 Answer: Business requirements for cyclic updates identified and a process is in place.

Part 2 Answer: Dataset has presently attained the greatest geographic coverage as defined by the current requirements or roughly 100%.

Justification Comment: **Attachment(s):**   0

The RNC datasets represent full U.S. coverage that is that is based on user requirements for safe navigation. Coverage is based on situational need such as large scale coverage for port operations, medium scale coverage for transiting between ports and small scale coverage for overview.

The datasets are updated on a weekly basis for critical corrections.
Geographic Coverage is available here:

http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml

STAGE 4 - Access

13) Do you have a process for providing users access to the data in an open digital machine readable format?

Answer: User access process is fully implemented, data is available, process is reviewed and updated on a recurring basis.

Justification Comment: **Attachment(s):**   0

Navigational Products are provided in multiple formats to support many different applications:

For Navigation: Raster utilizes the BSB 3.0 format. Electronic Navigational Charts utilize the IHO's S-57 transfer standard.
For non-navigational purposes: The data is also available in common GIS formats from the ENC to GIS application and through various web-services.   These are all linked from the Coast Survey website: www.nauticalcharts.noaa.gov

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STAGE 5 - Maintain

14) Is there a maintenance process for updating and storing the dataset?

Answer: Dataset maintenance process is fully implemented and processes are reviewed and

periodically updated.

Justification Comment: **Attachment(s):**   0

The Marine Chart Division maintains internal standards for the creation and updating of the RNC data sets. These are collectively known as the Nautical Chart Manual Volume I,II, and III. In addition to the the overarching manual MCD also maintains Standard Operating Procedures for the creation and maintenance of the data sets and these are stored as part of the Office of Coast Surveys Quality Management System.

http://www.nauticalcharts.noaa.gov

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15) Is there an error correction process as part of dataset maintenance?

Answer: Error correction process includes user notification, process reviewed on a recurring basis.

Justification Comment: **Attachment(s):**   0

The Office of Coast Survey maintains an Inquiry Management Database System that allows users to report issues regarding navigational products. As soon as an issue is logged it is assigned to a user to research and respond with any corrective action.

In addition, prior to distribution the datasets undergo checks for quality control to ensure that they comply to the prescribed formats.

http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx

STAGE 6 - Use/Evaluate

16) Is there a process to determine if the dataset meets user needs?

Answer: Process is fully implemented and repeated on a recurring basis.

Justification Comment: **Attachment(s):**   0

Coast Survey conducts an annual customer survey. Currently in the process of conducting a new survey this summer.

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17) Is there a process to provide users information on how to access and properly use the dataset?

Answer: Process is fully implemented supporting access and proper use, process is reviewed on a recurring basis.

Justification Comment: **Attachment(s):**   0

USCG Provides training on the use of Nautical Charts. Additional training material available on Coast Survey Website: www.nauticalcharts.noaa.gov

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18) Are the business processes and management practices assessed to meet changing technology?

Answer: Assessment process is fully implemented for taking advantage of changing technology, process is reviewed on a recurring basis.

Justification Comment: **Attachment(s):**   0

The Office of Coast Survey actively participates in the IHO working groups that are developing the next generation of Electronic Navigational Charting standards. In addition, OCS has moved to a central database for storing hydrographic data to support navigational products.

STAGE 7 - Archive

19) Is there an archiving process for the dataset?

Answer: Archival and disposition processes are fully implemented.

Justification Comment: **Attachment(s):**   0

The RNC datasets are archived as new editions and updates are released. They are archived using internal processes. The Office of Coast Survey is required to keep a copy of every dataset published

as it may be used for future FOIA or litigation requests.